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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,518	07/16/2004	Larry V. Presley	219807152004	4517
26496	7590	04/06/2005	EXAMINER	
GREENBERG & LIEBERMAN 314 PHILADELPHIA AVE. TAKOMA PARK, MD 20912			MAYEKAR, KISHOR	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/710,518

Applicant(s)

PRESLEY ET AL.

Examiner

Kishor Mayekar

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to a device, classified in class 422, subclass 186.3.
 - II. Claim 5, drawn to a method, classified in class 588, subclass 212.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice for generating ozone.

3. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Attorney Michael Greenberg on 9 March 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-4. Affirmation of this election must be made by applicant in replying to this Office action. Claim 5 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

6. The disclosure is objected to because of the following informalities: the continuing data in [0001] is not updated, the last line in [0028] is confusing, the phrase "A 30 weight cement" in second last line of [0030] is confusing as whether

it is weight percentage or else, two incomplete or confusing phrases "At the opposite end ... on desired use" and " Cap (45) will ...number used in [0030], the extra period at the end of the phrase "There is cement ... to secure the manifold" in 0033], and the use of the phrase "photo-reactor" instead of "photo-reactor plate" throughout the disclosure as it does not fit the definition in [0018] and as the plate it does not create any photochemical reaction inside the plate.

Appropriate correction is required.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The independent claims 1 and 4 recites a photo-reactor that traps UV light. However, Applicant fails to describe how the plate traps UV light. In [0014], applicant discloses that the plate is made of a special compound to allow UV light to enter the plate, but not leave. In [0027], Applicant discloses that the plate allows UV light within it, but then traps the light. And in [0028], Applicant discloses that the plate must only allow UV light within it, but not permit the light to leave and that if the plate allows UV light to escape, or literally pass through it, the present invention will not function properly, and will not effectively eradicate volatile chemical laden waste water. And in [0029], Applicant discloses that the plate and the manifold are made of an acrylic SOP of 16 wt. It is not clear on the record what is an acrylic SOP of 16 wt. What SOP and 16 wt stand for? And further as acrylic being a plastic material, how this material allows the light enter but not leave. The examiner requests from Applicant an explanation such as relevant art for record.

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10. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the plate sits atop the hollow body and the plate fits into and is supported by a slotted opening (as disclosed in the abstract and Figs. 1-4), does not reasonably provide enablement for the plate and the slotted opening placed in communication with a first end of the hollow body. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 2, 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and 3, the phrase "of 16 wt" is confusing as whether it represents the weight percent of the acrylic or else.

In claim 4, the claim is indefinite for the reciting the photocatalyst along with waste water as part of the structure of the device.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orr, Jr. et al. (4,095,115) in view of either Zimek et al. (5,397,444) or Crosbie (6,165,423). Orr's invention is directed an ozone generating device. Orr discloses in Figs. 1 and 2 that the device contains a hollow body with first and second ends, a plate 20 sits atop the hollow body, and a generally rectangular slotted opening adapted to receive the plate. Orr also discloses the use of the device for sewage treatment or water purification (col. 2, lines 38-44). The differences between Orr and the above claims are that the plate traps the UV light, the securing of the

plate to the hollow body with a series of bracing members, and a series of tubing communicating with the second end of the hollow body.

As to the UV light-trapped plate, it is inherently in the material made for the plate *20* as Orr discloses in paragraph crossing cols 3 and 4 to the material of the device (see col. 2, lines 18-24 of Knechtli 3,831,052).

As to the second and third differences, Zimek shows both the limitations in an apparatus with means for applying a corpuscular radiation to reactants for initiating or perfecting chemical reaction (see Fig. 1 or 2). Crosbie shows the same in an ozonizer (see abstract and Fig.1). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Orr's teachings as suggested by either Zimek or Crosbie because 1) as to the second difference, the selection of any of known equivalent means of securing the plate to the hollow body would have been within the level of ordinary skill in the art; and 2) as to the third difference "making elements separable was held to have been obvious", *In re Dulberg* 129 USPQ 148.

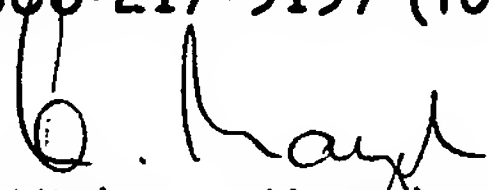
As to the subject matter of each of claims 2 and 3, since Orr discloses in paragraph crossing cols 3 and 4 to the material of the device, the selection of any

of known equivalent materials for the device would have been within the level of ordinary skill in the art.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kishor Mayekar
Primary Examiner
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